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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/980,503
Filing Date: March 06, 2002
Appellant(s): BOREL, JEAN-PHILIPPE

Paul P. Kiel
Registration No. 40,677
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 17, 2010 appealing from the Office action mailed November 4, 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 3-6, and 10-12.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,936,660	GURANTZ	8-1999
6,349,140	USHIYAMA	2-2002
6,289,314	MATSUZAKI	9-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Gurantz (U.S. Patent 5,936,660).

Regarding claim 10, Gurantz discloses:

A pay-per-use communication device comprising:

a tuner device, said tuner device having a tuner device output (Figure 3, column 4 lines 18-45);

a demodulator device, said demodulator device having a demodulator device input operatively coupled to said tuner device output and a demodulator device output (Figure 3, column 4 lines 18-45);

a demultiplexer device, said demultiplexer device having a demultiplexer control input and a demultiplexer device input, said demultiplexer device input being operatively coupled to said demodulator device output, said demultiplexer device including a plurality of descrambling devices, said plurality of descrambler devices having a respective plurality of descrambler device outputs (Figure 3, column 4 lines18-45), wherein the demultiplexer is the splitter which split into different signals, and the descramblers being interpreted as the RF modulation units because without the RF modulation the televisions would only receive a scrambled signal;

a plurality of decoding block devices, said plurality of decoding block devices including a respective plurality of decoding block device inputs, said plurality of decoding block device inputs being respectively operatively coupled to said plurality of demultiplexer device outputs (Figure 3, column 4 lines 18-45), wherein the decompressing units are interpreted as the decoding devices; and

a controller device, said controller device having a controller device output, said controller device output being operatively coupled to said demultiplexer control input (Figure 3, column 4 lines 18-45), wherein the control unit is the access control unit.

Claims 1, and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurantz (U.S. Patent No. 5,936,66) in view of Ushiyama (U.S. Patent No. 6,349,140).

Regarding claim 1, Gurantz discloses:

A pay-per-use communication device, in particular for television pictures. Gurantz discloses

"at least two input interfaces for receiving first and second scrambled signals bearing information subject to pay-per-use" (Figure 3 item 102, column 4 lines 3 – 17, column 4 lines 27-47), where the scrambled signal is received from a cable drop or other video source and is received at one of multiple tuners and wherein a plurality of scrambled signals are received at a plurality of converter boxes at a household premises and transformed into unscrambled signals which are sent to a plurality of television sets,

"first and second processing pathways having respective first and second descrambling modules able to undertake the conversion of the first and second scrambled signals via selected ones of the first and second descrambling modules, and provide the descrambled signals to at least two output interfaces" (Figure 3 item 102, column 4 lines 3 – 17, column 4 lines 27-47), where the scrambled signal is received from a cable drop or other video source and is received at one of multiple tuners and wherein a plurality of scrambled signals are received at a plurality of converter boxes at a household premises and transformed into unscrambled signals which are sent to a plurality of television sets,

"An access control module able to cooperate with a memory card for conditioning the operation of the first and second processing pathways" (Figure 3 item 110 and item 116, column 3 lines 16-27) where a conditional access unit (access control module) is used in conjunction with a smart card (memory card) to store user access entitlements,

and

Gurantz does not explicitly disclose "first and second processing pathways ***comprising first and second management means for driving the conversions of the first and second scrambled signals***, and in ***that first management means is arranged to communicate with the access control module to obtain a first control message for converting the first scrambled signals, and the second management means is arranged to communicate with the access control module by way of the first management means to obtain a second control message for converting of the second scrambled signals***." Ushiyama teaches a system wherein scrambled signals are received and output as descrambled signals to a plurality of televisions (Figure 4). There are at least two different subscriber terminal units (converter boxes), which operate in a master/slave relationship. The two boxes are both capable of requesting channels (column 4 lines 4-39), though the request is relayed through the master box, and therefore, both have their own management means. Regarding the respective control messages, Ushiyama teaches a system with a parent unit and a child unit (see Ushiyama: Abstract). Both the parent and the child unit are capable of requesting a channel via a channel command signal (Ushiyama: column 4, lines 7-11). In response to this command signal, sent by either the parent or the child, a signal a (control message) is sent to the parent unit and a second signal b (control message) is sent to the child unit (Ushiyama: column 9, lines 10-16). Gurantz and Ushiyama are analogous arts as both pertain to receiving a scrambled television signal and descrambling the signal before distributing it to a plurality of television sets. Using two

management systems as disclosed in Ushiyama would be beneficial in an environment of Gurantz because, as Ushiyama states, it provides a system "allowing the user to see pay channel programs with a plurality of TV receivers or the like in the house of the subscriber at a moderate cost" (column 2 lines 6-10) and further provides the capability of a user in a different room to view request and view a pay channel without being doubly charged (column 1 lines 46-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the at least two management means of Ushiyama in the descrambling environment of Gurantz to achieve the cost benefits and flexibility of requesting pay channels at any room in a building.

Claim 3 is rejected as applied above in rejecting claim 1. Gurantz does not explicitly disclose "the first management means are devised, on the one hand, to receive from the access control module, at predetermined time intervals, first and second control messages, for the respective conversions of the first and second scrambled signals, and, on the other hand, to transmit the said second control messages to the second management means." Ushiyama teaches a system wherein scrambled signals are received and output as descrambled signals to a plurality of televisions (Figure 4). There are at least two different subscriber terminal units (converter boxes), which operate in a master/slave relationship. The two boxes are both capable of requesting channels (column 4 lines 4-39), though the request is relayed through the master box, and therefore, both have their own management means. Gurantz and Ushiyama are

analogous arts as both pertain to receiving a scrambled television signal and descrambling the signal before distributing it to a plurality of television sets. Using two management systems as disclosed in Ushiyama would be beneficial in an environment of Gurantz because, as Ushiyama states, it provides a system "allowing the user to see pay channel programs with a plurality of TV receivers or the like in the house of the subscriber at a moderate cost" (column 2 lines 6-10) and further provides the capability of a user in a different room to view request and view a pay channel without being doubly charged (column 1 lines 46-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the at least two management means of Ushiyama in the descrambling environment of Gurantz to achieve the cost benefits and flexibility of requesting pay channels at any room in a building.

Claim 4 is rejected as applied above in rejecting claim 3. Furthermore, Gurantz discloses:

Device according to claim 3, wherein "the first and second management means respectively comprise a first and a second processor, which are devised so as to respectively drive first and second descrambling modules for descrambling the first and second scrambled signals" (Figure 3, column 4 lines 4 - 48), where a plurality of scrambled signals are received at a plurality of converter boxes at a household premises and transformed into unscrambled signals which are sent to a plurality of television sets.

Claim 5 is rejected as applied above in rejecting claim 4. Furthermore, Gurantz discloses:

Device according to claim 4. Gurantz does not explicitly disclose "the first processor is able to drive the second processor according to a protocol of the master/slave type." Ushiyama does disclose "a first processor driving a second processor according to a master/slave type protocol" (Figure 4, column 2 lines 26 - 50), where Ushiyama discloses a parent subscriber unit terminal (master) comprising a control unit which controls the switching of the descrambled information descrambled by the descrambling units of the parent (master) or the child (slave) units. Gurantz and Ushiyama are analogous arts as both pertain to receiving a scrambled television signal and descrambling the signal before distributing it to a plurality of television sets. The master/slave protocol used in Ushiyama would be beneficial in an environment of Gurantz because, as Ushiyama states, the master/slave relationship provides a system "allowing the user to see pay channel programs with a plurality of TV receivers or the like in the house of the subscriber at a moderate cost" (column 2 lines 6-10) and further provides "an information receiving system for allowing the number of subscriber terminal units controlled by a center to be decreased, thereby reducing the load of the processing performed by the center" (column 2 lines 1 - 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the master/slave relationship of Ushiyama in the descrambling environment of Gurantz to achieve the cost benefits and the reduced load of the processing performed by the

distribution center provided by this relationship.

Claim 6 is rejected as applied above in rejecting claim 4. Furthermore, Gurantz discloses:

Device according to claim 4, wherein "the first and second input interfaces are linked to means for receiving radio frequency waves" (column 2 lines 35-43), where the input interfaces can receive signals from a cable drop or a satellite (RF waves), and in that

"The first and second processing pathways respectively comprise frequency converters each adapted to a polarization of the radio frequency waves transmitted by a satellite" (Figure 3 items 104, 106, 108, column 4 lines 19-48), where the signal is received by the tuner, then demodulated, decompressed, modulated and sent to a plurality of television sets.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurantz (U.S. Patent No. 5,936,66) in view of Ushiyama (U.S. Patent No. 6,349,140) in further in view of Matsuzaki et al. (U.S. Patent 6,289,341).

Claim 11 is rejected as applied above in rejecting claim 1. Gurantz and Ushiyama are silent on the first and second access control messages performing cryptographic operations. Matsuzaki, in an analogous art, discloses a system which sends a random number (access control message) which is encrypted to the terminal which decrypts the random number and then uses it to descramble the received

information (pay information) by using the decrypted random number (column 7, line 35 – column 8, line 23). It would have been obvious to use the access control messages to perform cryptographic operations so that it is possible to more safely distribute information to a specific terminal (Matsuzaki: column 8, lines 19-23).

Claim 12 is rejected as applied above in rejecting claim 11. Furthermore, Matsuzaki discloses that the first and second access control messages depend on a single descrambling key and conditional access control messages (column 7, line 35 – column 8, line 23). The access control message comprises a random number which is decrypted by a single key and used to descramble the scrambled pay information (column 8, lines 14-23). Therefore, it depends on a single key (random number) and conditional access control messages (encrypted random number).

(10) Response to Argument

The Appellant argues:

That the combination of Gurantz and Ushiyama does not result in a pay-per-use communication device.

The Examiner contends that the combination of Gurantz and Ushiyama does result in one pay-per-use device as the different components of the pay-per-use system are interpreted as being one device. The Examiner further contends that this interpretation is consistent with the Applicant's own interpretation in the claims. For example, in claim 10, there is a pay-per-use communication device comprising a tuner

device, a demodulator device, a demultiplexer device, a decoding device, and a controller device. Therefore, the Examiner interprets the parent unit and the child unit as part of the same device, as they are both receiving the same TV signal and are connected through a control line signal (Ushiyama: see Abstract). Therefore, the Examiner contends that the different devices are actually part of a pay-per-use system/device, just as the different devices discloses by the Appellant in claim 10 are claimed to be part of the same device.

The Appellant further argues:

That there is no proper motivation for combining the Gurantz and Ushiyama references.

The Examiner contends that the combination of the references is proper. Gurantz and Ushiyama are analogous arts as both pertain to receiving a scrambled television signal and descrambling the signal before distributing it to a plurality of television sets. Furthermore, using two management systems as disclosed in Ushiyama would be beneficial in an environment of Gurantz because, as Ushiyama states, it provides a system "allowing the user to see pay channel programs with a plurality of TV receivers or the like in the house of the subscriber at a moderate cost" (Ushiyama: column 2 lines 6-10) and further provides the capability of a user in a different room to view request and view a pay channel without being doubly charged (Ushiyama: column 1 lines 46-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the at least two management means of Ushiyama in the

descrambling environment of Gurantz to achieve the cost benefits and flexibility of requesting pay channels at any room in a building.

The Appellant further argues:

That Gurantz and Ushiyama do not discloses two separate management means that respectively drive the conversions of scrambled signals through different descramblers.

The Examiner contends that Gurantz and Ushiyama do disclose two separate management means that respectively drive the conversions of scrambled signals through different descramblers. Ushiyama teaches a system with a parent unit and a child unit (see Ushiyama: Abstract). Both the parent and the child unit are capable of requesting a channel via a channel command signal (Ushiyama: column 4, lines 7-11). In response to this command signal, sent by either the parent or the child, a signal a (control message) is sent to the parent unit and a second signal b (control message) is sent to the child unit (Ushiyama: column 9, lines 10-16). This requesting and receiving by each unit is analogous to driving the conversion of the scrambled signals as it both requests the signal and each unit will receive a descrambled signal depending on the channel command signal (Ushiyama: column 3, line 64 - column 4, line 4). Therefore, each management means does drive the conversion of the scrambled signal. Therefore, the Examiner respectfully contends that Gurantz and Ushiyama do teach does teach obtaining respective control messages for converting the signals.

The Appellant further argues that the Cited Prior Art (CPA) fails to disclose the use of two different descramblers through which the conversion of scrambled signals are driven.

The Examiner contends that the combination of Gurantz and Ushiyama do disclose two different descramblers which drive the conversion of scrambled signals. Gurantz discloses a converter box which feeds a signal which is fed into converter units (descrambling units) which each have independent tuner/demodulator/decompression/modulator units (Gurantz: column 4, lines 25-34). These independent units are interpreted as the descrambler units because they perform a descrambling function of taking an image which is not viewable (scrambled), and tunes, demodulates, and decompresses it, so it can be output as viewable (descrambled) video (Gurantz: column 4, lines 25-34). The Applicant further argues that descrambling should be interpreted as including decrypting signals (Remarks/Arguments: page 9, paragraph 2). The Examiner does not agree with the Applicant's statement that the plain meaning of descrambling is decrypting. The Applicant is correct that descrambling may include decrypting signals, but it is not limited to decryption. Descrambling is interpreted as taking a scrambled or unviewable signal, and processing the signal to provide a viewable or unscrambled image. The claim does not state anything about an encryption key, or anything else which would explicitly limit the descrambling function to decryption. Furthermore, the Applicant points to the specification as providing support for the assertion that the descrambling should be given the decryption definition. However, there is no mention of decryption or

encryption in the specification, and there is no statement limiting descrambling to being decryption. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., decryption) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If the Appellant desired to limit the meaning of descrambling to decryption, the Appellant could have incorporated such language into the claims.

The Appellant further argues that Gurantz and Ushiyama do not teach a second management means that receives access control messages which allow conversion of scrambled signals.

The Examiner contends that Gurantz and Ushiyama do teach a second management means that receives access control messages which allow conversion of scrambled signals. Ushiyama teaches a system with a parent unit and a child unit (see Ushiyama: Abstract). Both the parent and the child unit are capable of requesting a channel via a channel command signal (Ushiyama: column 4, lines 7-11). In response to this command signal, sent by either the parent or the child, a signal a (control message) is sent to the parent unit and a second signal b (control message) is sent to the child unit (Ushiyama: column 9, lines 10-16). This signal would go to the TV tuner which then descrambles the TV signal b, and therefore the second signal b is necessary

for the conversion of the scrambled signal since it is needed to be received at the TV tuner before any descrambling can be performed (Ushiyama: column 11, lines 32-40).

The Appellant further contends that Gurantz does not teach a demultiplexer including a plurality of descrambler devices.

The Examiner contends that Gurantz does teach a demultiplexer including a plurality of descrambler devices. Gurantz discloses a converter box which feeds a signal which is fed into converter units (descrambling units) which each have independent tuner/demodulator/decompression/modulator units (Gurantz: column 4, lines 25-34). These independent units are interpreted as the descrambler units because they perform a descrambling function of taking an image which is not viewable (scrambled), and tunes, demodulates, and decompresses it, so it can be output as viewable (descrambled) video (Gurantz: column 4, lines 25-34). The Applicant further argues that descrambling should be interpreted as including decrypting signals (Remarks/Arguments: page 9, paragraph 2). The Examiner does not agree with the Applicant's statement that the plain meaning of descrambling is decrypting. The Applicant is correct that descrambling may include decrypting signals, but it is not limited to decryption. Descrambling is interpreted as taking a scrambled or unviewable signal, and processing the signal to provide a viewable or unscrambled image. The claim does not state anything about an encryption key, or anything else which would explicitly limit the descrambling function to decryption. Furthermore, the Applicant points to the specification as providing support for the assertion that the descrambling

should be given the decryption definition. However, there is no mention of decryption or encryption in the specification, and there is no statement limiting descrambling to being decryption. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., decryption) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If the Appellant desired to limit the meaning of descrambling to decryption, the Appellant could have incorporated such language into the claims.

Further, the Appellant argues that Gurantz, Ushiyama, and Matsuzaki do not render obvious the limitation of a second management means that receives access control functions perform cryptographic functions.

The Examiner contends that Gurantz, Ushiyama, and Matsuzaki do render obvious the limitation of a second management means that receives access control functions perform cryptographic functions. Matsuzaki is in an analogous art with both Gurantz and Ushiyama as it is directed to receiving pay information for descrambling video information (see Matsuzaki: Abstract). Matsuzaki discloses a system which sends a random number (access control message) which is encrypted to the terminal which decrypts the random number and then uses it to descramble the received information (pay information) by using the decrypted random number (column 7, line 35 – column 8, line 23). It would have been obvious to use the access control messages to

perform cryptographic operations so that it is possible to more safely distribute information to a specific terminal (Matsuzaki: column 8, lines 19-23). As disclosed above, the multiple devices (though part of the same system) are present in the pay-per-use device, and therefore, this added security would be useful to more safely and securely distribute information so that a third party cannot intercept the signal without paying for the program.

Finally, the Appellant argues that Gurantz, Ushiyama, and Matsuzaki do not render obvious the limitation of a second management means that receives access control functions which depend on a single descrambling key and on conditional access messages.

The Appellant argues, as above, that it is not obvious to combine the references. However, the Examiner contends that there is proper motivation for the combination. Matsuzaki is in an analogous art with both Gurantz and Ushiyama as it is directed to receiving pay information for descrambling video information (see Matsuzaki: Abstract). Matsuzaki discloses a system which sends a random number (access control message) which is encrypted to the terminal which decrypts the random number and then uses it to descramble the received information (pay information) by using the decrypted random number (column 7, line 35 – column 8, line 23). It would have been obvious to use the access control messages to perform cryptographic operations so that it is possible to more safely distribute information to a specific terminal (Matsuzaki: column 8, lines 19-23). As disclosed above, the multiple devices (though part of the same

system) are present in the pay-per-use device, and therefore, this added security would be useful to more safely and securely distribute information so that a third party cannot intercept the signal without paying for the program.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

(11) Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Kaveh Abrishamkar

/Kaveh Abrishamkar/

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